

Space Florida Annual Performance Report Fiscal Year 2008



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August 28, 2008

Governor Charlie Crist
The Capitol
Tallahassee, FL 32399

Dear Governor Crist,

In accordance with Chapter 331, Florida Statutes, it is my privilege to submit the Space Florida Annual Report on performance with respect to its business plan, including finance, spaceport operations, research and development, workforce development, education and associated activities for Fiscal Year 2008.

Space Florida was created as an independent special district, a body politic and corporate, and a subdivision of the state of Florida in 2006. Space Florida's mission is to drive state economic development across the global aerospace enterprise and our vision is to be the world leader in developing tomorrow's aerospace enterprise, creating a diversified business environment and robust continued economic growth for Florida.

The past fiscal year has been focused on securing necessary launch complex infrastructure, legislatively working to ensure Florida's economic development processes are robust, and driving commercial business support for the NASA COTS and CRS bid companies. Space Florida has made great progress in the areas of business development, innovative education, research and development and workforce development as detailed in the accompanying annual report. This is an exciting time for Florida and our nation as we continue to advance what we have begun – to ensure the nation and the world knows that Florida is a leader among states and competitor among nations.

On behalf of Space Florida, the Space Florida Board of Directors and staff, we are privileged to serve the State in the development and promotion of Florida as the world's gateway to space.

Respectfully,



Steve Kohler
President

Cc: Lt. Governor Jeff Kottkamp
President of the Senate
Speaker of the House
Minority Leader-House
Minority Leader-Senate
OTTED
Space Florida Board of Directors

Space Florida



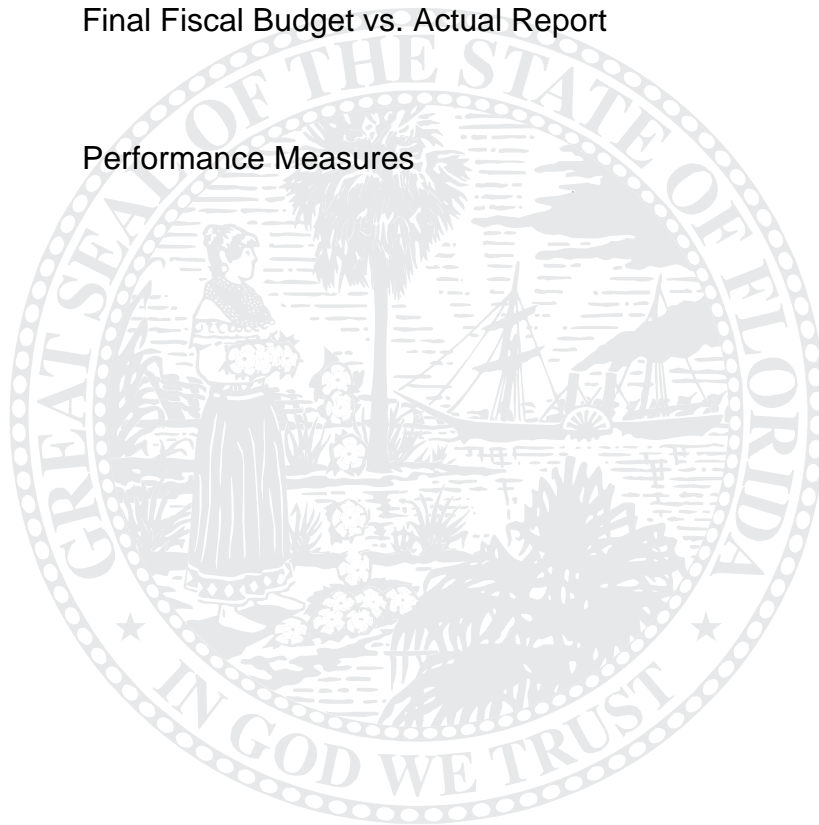
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SPACE FLORIDA ANNUAL PERFORMANCE REPORT: OVERVIEW

Space Florida Background Information

In May 2006, Part II of Chapter 331 of the 2006 Florida Statutes, “The Space Florida Act” was signed into law. Space Florida was formed to be the single point of contact for state aerospace economic development to include related activities with federal agencies, military, state agencies, private sector and publicly-held businesses, consolidating the roles of three predecessor organizations. Space Florida became an active organization on September 1, 2006 and Steve Kohler assumed his role as Space Florida President on October 2, 2006.

The Space Florida Mission is: ***Space Florida drives economic development across the global aerospace enterprise.*** The Space Florida Vision is: ***To be the world leader in tomorrow’s aerospace enterprise, creating a diversified business environment and robust continued economic growth for Florida.***

Created as an independent special district to provide statewide leadership and advocacy for space-related issues, Space Florida was set up as an agile organization responsible for reacting to and developing opportunities and business initiatives by aligning strategic efforts into a dynamic and changing economic environment surrounding the space and aerospace sectors. Space Florida is endowed with a number of unique capacities intended to enable the organization to meet its objectives. Examples of this capability include:

- Conduct its affairs, carry on its operations, and have offices and exercise the powers granted by this act in any state, territory, district, or possession of the United States or any foreign country.
- Acquire, enjoy, use, and dispose of patents, copyrights, and trademarks and any licenses and other rights or interests under or in such licenses.
- Lend money for its purposes, invest and reinvest its funds, and take and hold real and personal property as security for the payment of funds loaned.
- Acquire property, real, personal, intangible, tangible, or mixed, within or without its territorial limits, in fee simple or any lesser interest or estate, by purchase, gift, devise, or lease, on such terms and conditions as the board may deem necessary or desirable, and sell or otherwise dispose of the same and of any of the assets and properties of Space Florida.
- Make and execute any and all contracts and other instruments necessary or convenient to the exercise of its powers, including financing agreements with persons or spaceport users to facilitate the financing, construction, leasing, or sale of any project.

The following annual report reflects the activities and accomplishments of Space Florida in FY2008 in five key areas:

1. Board Strategic Policy and Organizational Development
2. Operating Requirements / Needs
3. Spaceport Operations
4. Business Development
5. Education, Research and Development, and Workforce Development

Space Florida



SPACE FLORIDA ANNUAL PERFORMANCE REPORT: OPERATIONS

PROJECT 1: BOARD STRATEGIC DEVELOPMENT

Appointed by Governor Crist in July 2007, Lt. Governor Jeff Kottkamp served as Chair of the Space Florida Board of Directors. The Board of Directors appointed by Governor Crist served throughout FY2008. (See Space Florida Board of Directors List Section 6.)

Under its policy leadership, in FY 2008 the Space Florida Board of Directors:

- Elected Gary Spulak, President of EMBRAER USA, to Vice Chair
- Appointed Howard Haug as Treasurer and Chief Financial Officer
- Supported the appointment of key leaders to serve on the Space Florida Advisory Committees
- Successfully ratified clean audit reports for FY2007
- Approved funds of \$250,000 to Aerospace Career Development Council
- Adopted the FY2008 Budget
- Approved the 2008 Legislative Agenda
- Supported the Space Florida Business Plan V. 2
- Adopted the Space Florida Governance Policy.

PROJECT 2: OPERATIONS

The framework development of a high-performance, cohesive team was systematically developed by the President. Philosophically, this deliberate lean organizational design involved identifying those whose support was essential to the success of the organization, and who augmented the technical, commercial and industry expertise.

The hiring of key staff, continued establishment of best-in-class business practices, and the development of the Space Florida brand and culture further established the foundation for a sustainable and successful organization for the future.

Establishing and ensuring financial stability included the continuation of transforming non-performing assets into performing assets in order to create additional value for Space Florida. This ongoing process involved infrastructure investment and upgrades, negotiating contracts and / or locating tenants to move into newly upgraded facilities. (See Spaceport Operations for further detail.)



PROJECT 3: STATE BUDGET

The 2007 Florida Legislature appropriated \$7M for the Fiscal Year 2008 budget for Space Florida. The \$7M represented allocated revenue outside of recurring funds, and was in line with Space Florida's budget request that supported the Strategic Business Plan V.2. The Fiscal Year 2008 Budget vs. Actual report is attached in Section 8.

Space Florida developed and submitted to the 2008 Legislature a proposed budget request increase in funding from \$7M to \$10M for Fiscal Year 2009, supported by the Governor. Space Florida President, government affairs staff and consultants worked closely with legislators to educate them on the importance of funding Space Florida's full \$10 million request. The House proposed a budget of \$4.5 million, while the Senate proposed \$3 million. The events that resulted in low proposals from the House and Senate were unrelated to the importance of projects or developments. In the end, due in part to the State's need to cut \$6 billion from the budget, Space Florida was appropriated \$4.0 million for FY 2009, a 43% decrease from FY 2007. Necessary adjustments reflecting the reductions in appropriations began immediately following the Governor's signature in preparation for FY09 operations, while at the same time supporting the Space Florida organizational objectives.

PROJECT 4: STATE SPACE STRATEGY AND LEGISLATIVE PLAN

Space Florida proactively assumed its obligation to identify state policies and appropriations, and develop and draft bills that would create incentives to bring commercial space entities to Florida, advance the state's space programs and initiatives, and remove barriers to enable businesses to grow or locate / relocate in Florida.

Concurrently, Space Florida aggressively worked with key strategic partners throughout the state to assure successful implementation of legislative action and funding requests important to the FY08 Space Florida strategy. Space Florida worked to identify basic goals, overall approaches, priorities, and ways to coordinate efforts across organizations, believing there is a direct correlation between the powerful advocacy and unified legislative education by business and organizations, and the successful outcome of the legislative session.

Some of the key strategic business partners who worked along side, and stood with Space Florida on key legislation included:

- Enterprise Florida
- Workforce Florida, and their many partner organizations around the state
- Florida Chamber of Commerce
- Associated Industries of Florida
- Brevard County Commissioners and key staff
- Governor, Lt. Governor, and OTTED leaders

These partner relationships have been mutually beneficial as Space Florida also stood in support of many bills specific to their organizations. Like Space Florida, many of these organizations have their own lobbyists and consultants who bring with them networks and relationships that are valuable to each other. Our collective complementary interests



served to strengthen the state's overall business, economic development, and workforce initiatives.

Throughout the year, Space Florida proactively led and participated in high-profile and targeted activities designed to articulate, educate, and support Space Florida's objectives associated with its State Space Strategy. Some of these Space Florida highlights included:

- Sponsored and participated with the Lt. Governor in the World Space Expo
- Sponsored Space Day in Tallahassee, with more than 70 people representing 20 organizations devoting a day to educate legislators and advocate for space. Space Florida and these groups developed relationships with each other and with legislators stressing the importance of the package of space related key legislative bills, and the need for passage to strengthen the space industry for the future of space to Florida.
- Hosted SpaceX ground breaking ceremony with associated 45th Space Wing, Lt. Governor, legislative and media involvement
- Delivered briefings to EFI Space and Defense Committee and Legislative Affairs Committee.
- Sponsored and actively partnered with the Florida EDC (FEDC) for their 2008 annual conference in Tampa.
- Accompanied Governor Crist and EFI on the economic development venture to Brazil during which time President Steve Kohler met directly with the Brazilian Space Agency.
- Signed Memorandums of Understanding MOUs with EFI, VISITFlorida, and FDOT.
- Sponsored and actively hosted businesses, and conducted private meetings with strategic space leaders from the 45th Space Wing at NSS in Colorado Springs.
- Continued work with Jacksonville Aviation Authority and West Palm Beach on expansion of aerospace activities and horizontal launch facility development
- Attended and presented Space Florida's initiatives at the Brevard County Commissioner's Meeting in Viera, FL, August 8, 2007
- Sponsored a major Space Coast Leadership Forum in Cape Canaveral, FL on August 22, 2007 addressing strategies to counter job losses expected to occur during the transition from Shuttle to Constellation. Forum was attended by the KSC Director, 45th SW Commander, Congressman Feeney and Congressman Weldon and several industry leaders.
- Attended and presented at the Speakers Forum on Space and Technology, Cocoa, FL September 14, 2007

The legislative session was increasingly challenged due to the need to cut expenses and balance the state's budget. Throughout the session, and in particular the second half of the legislative session, all efforts were aggressively stepped up to ensure that information supporting the bills was accurate, timely and clear. Some of the activities included:

- Testimony by President Steve Kohler before the Senate Commerce Committee.
- Frequent meetings by the President, Government Affairs staff and the Space Florida lobby team with sponsors of the bills and key staffers to clarify questions,

Space Florida



address specific Space Florida actions and underscore the benefits of bill passage to aerospace in Florida.

- Nearly daily committee hearings, legislator meetings, and updates with appropriate organizations throughout the session on evolving issues important to the space industry.
- Frequent meetings with key partner organizations to highlight messaging and update information.

Ultimately, a package of space-related bills succeeded. Even with the appropriations cutbacks, Space Florida was able to make significant strides in achieving necessary support to attract the space industry to Florida through some conventional (funding assistance) and unconventional (i.e. Informed Consent) means. The recap of Space Florida bills includes:

- **The SPACE Act (SB 2426 & HB 1355); sponsored by Senator Bill Posey and Representative Thad Altman.** Space Florida used this legislative tool (initially SADIE—reworked and renamed The SPACE Act) to appropriate money for the upgrade of space-related infrastructure, to partner with applicable businesses on space-related projects, or otherwise provide incentives for space-related ventures. Specifically, Space Florida requested \$15M to begin the upgrade of a multi-vehicle, multi-use launch complex that would allow companies like Orbital Sciences and Space X to launch from Florida.

The Space Act was dropped in the Senate after it was agreed Space Florida would receive the money as an earmark through the Road Fund line item. ***Ultimately, the legislature made a specific appropriation in the amount of \$14.5 million for launch complex infrastructure buildup; signed by the Governor.***

- **Informed Consent (SB 2438); sponsored by Senator Posey and Representative Simmons.** This bill was designed to provide immunity from liability for injury to, or death from, certain spaceflight participants if specified warning statement requirements were in compliance. The bill provided exceptions for extreme situations and provided minimum requirements for warning statements. This bill was similar to a bill the state of Virginia recently passed, however, the Florida Informed Consent bill included a 10-year Sunset provision, as opposed to Virginia's five-year Sunset provision; ***signed into law by the Governor.***
- **Qualified Defense Contractor Tax Refund Program (HB 1373); sponsored by Senator Posey and Representative Altman.** This bill included space flight businesses and space flight contracts under the program. It specified the methodology and amounts for tax refund payments to qualified defense contractor businesses; revised provisions authorizing qualified applicants to receive refunds of specified taxes; revised application process requirements to include space flight businesses and contracts; provided employment requirements for space flight business contracts; specified required information for applications for certification



under space flight business contracts; included space flight businesses under provisions authorizing annual claims for refund; revised limitations on payments of tax refunds; revised required reduction amounts of tax refunds; deleted reporting requirement of tax refunds paid, and use of appropriations expended; extended the expiration date; ***signed into law by the Governor.***

- **Economic Stimulus (SB 2310); sponsored by Senator Ring and Representative Attkisson.** This legislation requires the State Board of Administration to report on the amount and type of technology and growth investments held by each fund; authorized the board to invest a certain percentage of net assets in space technology and other growth investments, particularly those located in Florida; created the Reusable Space Vehicle Industry Prize Program (including a \$40 million prize for reaching the moon) within the Office of Tourism, Trade, and Economic Development of the Executive Office of the Governor; ***signed into law by the Governor.***

PROJECT 5: FEDERAL SPACE POLICY AND LEGISLATIVE PLAN

Space Florida has the responsibility to identify federal policies and appropriations necessary to advance the space programs and industries within the state of Florida, and to remain attentive to those developments that would impede those advances. Concurrently, Space Florida also has the opportunity to work with the appropriate partners across the nation to assure successful implementation of those favorable programs and funding.

In Fiscal Year 2008, Space Florida identified federal executive actions, legislative changes, and appropriations needed to advance the state space strategy and to sustain and expand space business and programs for Florida. The Federal legislative plan to secure these goals was developed and implemented, with Federal space policy positions and an aggressive and broad legislative plan.

In order to assist with the advancement of its aggressive agenda, Space Florida retained the services of Blank Rome. Highlights of Fiscal Year 2008 activities included:

- Developed legislative priorities of:
 - Commercial Space Infrastructure Program
 - Eastern Range Launch Access
 - Blue Force Tracking appropriation request
 - Increased funding for NASA via Authorization Bill
 - Acquisition of Orbiter for the state of Florida upon retirement
- Succeeded in the first ever, Florida Delegation letter; 20 of 27 Florida Congressional leaders signing bi-partisan support and encouragement for Orbital Sciences to locate and launch from Florida.
- SF staff attended NASA briefing on the President's proposed budget.
- Provided testimony by President Steve Kohler for the need to increase funding for NASA, and to commission a study of the Eastern Range that will remove barriers



and determine areas that will promote commercial space launch capability improvement.

- Signed MOU's and participated in Capitol Hill Day events in Washington DC with each, California Space Authority and Spaceport New Mexico
- Conducted ongoing series of meetings with U.S. Congressman Dave Weldon, U.S. Senators Bill Nelson and Mel Martinez, and U.S. Congressman Tom Feeney.
- Hosted U.S. Senator David Vitter of Louisiana in private discussions and conducted subsequent round table discussions with Steve Kohler, staff, NASA officials, and local community and business leaders discussing issues specific to the State.
 - This meeting included a discussion centered on actions that would benefit the U.S. position in space related activities.
 - Specific recommendations included developing a policy that allows contractors to “buy” services from the Air Force on a marginal cost basis rather than on a full cost accounting basis;
 - Explored a National Spaceport concept which could be the recipient of federal funding along the lines of funding airports receive via the Airport Airways Trust Fund;
 - Explored the requirement of NASA to purchase a minimum of two flights per year for ISS resupply, as part of the CRS program.
- Requested and participated in Congressional meetings with members of the executive branch key to the space industries including NASA, NSSO, Department of State, Department of Labor, US Air Force, White House/OSTP, FAA, and the Department of Commerce.
- Met with a many Congressional members from the state of Florida, as well as committees of relevance.
- President appointed to US Chamber of Commerce's Space Enterprise Council
- President appointed to Personal Spaceflight Federation board.

FEDERAL LEGISLATIVE PACKAGE:

Enhanced Use Lease (EUL) Capability – The FY08 Omnibus Appropriations statute changes NASA's EUL authority to the distinct disadvantage of efforts underway at KSC. The effective date for the changes is December 31 of 2008, so there exists the opportunity for adjustments before a negative impact is realized. Modifications desired would allow KSC to enter into lease arrangements that would allow ‘in-kind’ consideration for lease payments. (For example, *a solar power generating project on-site at KSC would allow the utility company to compensate NASA with electricity*). Also sought is the legislative remedy permitting the revenue generated from an EUL to return to KSC. Absent any amendments the legislation will mandate that revenue be redirected to NASA HQ in its entirety. That eliminates the incentive for KSC to seek out these collaborations. Partners working the issue include the Economic Development Commission of Florida's Space Coast and those industries reliant on a favorable business case to justify their investment. **Counteracts legislation from 2007.**

International Space Station (ISS) National Laboratory – The ISS has been declared a National Laboratory and access to it by universities and the private sector is formalized to correspond with other National Laboratories, such as Oak Ridge, Los Alamos, Sandia and others. This brings closer the realization of KSC becoming the payload processing center for all US launched cargo and experiments destined for that \$100B low earth orbit



facility. However, funding, management and authority for this future activity is disturbingly undefined and will remain so until a new President's priorities are clarified. This provides both risks and opportunities for Florida's role. The initial ISS operations planning at NASA provided that Florida's responsibilities in this field would be substantive. But other centers and organizations share an appreciation for the economic potential of a successful ISS and will offer compelling political, if not technical, reasons why that valuable activity should be conducted elsewhere. Particular fields of interest coming from the private sector and federal government include biotech, agriculture and energy. Additionally, Space Florida is working to assure the Space Life Sciences Lab is designated a national laboratory.

ITAR Reform - The current export licensing process, initially anticipated to protect vital US technology and scientific advances from hostile nations, has proven to be both onerously burdensome and profoundly counterproductive. The adverse impact of the existing process is restraining the healthy growth and development of new technologies in Florida, and throughout the country. The result is the robust new technologies springing up off-shore. The businesses and universities in Florida, and across the nation, require a reform of this system that will protect critical technology but do so in a rationale manner consistent with the traditions of the marketplace which originally enabled the US superpower status.

Commercial Space Infrastructure Program (CSIP) – Although never funded, there exists a provision in the 1992 NASA Authorization bill allowing \$10 million to be used for grants for commercial space transportation infrastructure, implemented by the Department of Transportation. The funds would come from the transportation appropriations bill. Utilization of an existing funding mechanism such as this grant program enhances the likely success of new resources becoming available. **Secured letters of support to Chair, Patti Murray and Ranking Member Kit Bond, Transportation, Housing and Urban Development Appropriations Subcommittee from Senators Nelson and Martinez and Governor Charlie Crist.**

DoD

Blue Force Tracking with Persistence - Space Florida has requested Federal funding in the amount of \$5 million from the FY 2009 defense budget to minimize existing vulnerabilities and advance the capabilities of this joint service Blue Force tracking program. The project is designed to develop small satellite constellations with which to provide the U.S. military with a superior joint Blue Force tracking capability on the location of friendly forces on the battlefield. This program will expand small satellite research activity already initiated at the University of Florida. Partners include UF and those other businesses and universities committed to enhancing the state's small satellite design and manufacturing capabilities.

Range Issues – Over the last decade the 45th Space Wing at Cape Canaveral Air Force Station has become much more accommodative to the concerns and interests of new commercial business ventures looking to make use of the favorable geography or legacy infrastructure available there. To the credit of the Wing it has done so without the charter or funding for such accommodations. Nonetheless, the obstacles to development of a vibrant and diverse commercial launch marketplace in Florida remain daunting. It is the

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single greatest challenge to all ‘space stakeholders’ in Florida to unleash this vast potential, so long shackled or stillborn, while still assuring the Air Force can meet its requirements to the war fighter.

This challenge will not be overcome with a simple stroke of the pen but through working with partners, the Pentagon, Space Command, the White House and Congress in consistent steps forward. Space Florida worked with Congressional staff to ensure that a study of this particular issue was included in pending NASA Authorization language in both the House and Senate.

Marginal Cost Accounting for Range Use - Traditionally the full cost of range assets (personnel & equipment) has been assigned to those who have need of those services. However, those assets are there anyway to support the missions of the services. There exists substantial precedent within the military for applying only marginal costs to the private sector of those range services.

Future Range Architecture – The Wing has been the provider of range services since the inception of space launch activities at the Cape. However, this paradigm represents the great albatross about the neck of Florida, and inhibits the economic potential waiting impatiently across the country. The FAA has control of the air space over the nation. The military uses it when it needs it and has long felt its needs are met. A future where the FAA air space ceiling is nonexistent is not far away. The sky and near space filled with general and commercial aircraft, sub-orbital and orbital commercial spacecraft, and civilian and military activity is not a dream, it is inevitable.

A joint endeavor by the Air Force, the FAA and NASA to begin to study what that future operational environment would look like and what technologies will be necessary is an appropriate next step. That future will have the FAA do what it needs to as a regulatory agency, NASA will provide much of that new technology and concepts, and the Air Force can continue to assure its ability to provide what it needs, when it needs it, to the war fighter.

Post Shuttle Initiative:

Artifact and Memorabilia Disposition – In order to maximize opportunities associated with the Shuttle Program Transition and Retirement it is requested that KSC be authorized as the Lead Center for a secure NASA-to-Public Trading Exchange of Marketable Space Artifacts. With the future value of the Shuttle parts, pieces, and other associated components potentially a significant source of revenue to the agency, it is desirable to have the disposition of that hardware be managed where it resides, in Florida. Partners potentially working the issue include the Economic Development Commission of Florida’s Space Coast and those industries interested in building a strong business model to attract the necessary investment.



SPACE FLORIDA ANNUAL PERFORMANCE REPORT: BUSINESS DEVELOPMENT

PROJECT 1: AEROSPACE ECONOMIC DEVELOPMENT

Space Business Development is one of the appropriated funded activities for recruiting and supporting new space operations and customer capture deliverables. This funded activity implements Space Florida's economic development mission and supports the Governor's priority goal of economic diversification.

Space Florida continued its leadership role in support of the NASA's re-bid of the Commercial Orbital Transportation Service (COTS) second contract. Space Florida actively supported seven (7) of the eight (8) bidders, and all four of the final four potential selection companies.

Once the re-bid COTS winner – Orbital Sciences — was announced, Space Florida aggressively coordinated resources of the USAF 45th Space Wing, the John F. Kennedy Space Center, Enterprise Florida, the Executive Office of the Governor and other organizations in support of recruitment of their COTS program to Florida. These efforts included working with Orbital to develop a suitable launch complex configuration, identifying potential surplus NASA and USAF assets that could be reused for Orbital's benefit, and familiarizing Orbital with range safety procedures. While Orbital has committed to conducting their test launches at NASA's Wallops Island Facility in Virginia, Space Florida continues to remain in regular contact with their key decision makers and is optimistic about ultimately gaining some of Orbital's launch business in Florida.

Space Florida continued its work with the first COTS contractor SpaceX, facilitating additional specific technical evaluations, intermodal access requirements, safety and risk management plans, regulatory and review processes, and identification, acquisition, and relocation of surplus NASA fueling infrastructure from Santa Susana, CA to Launch Complex 40. These efforts provided significant cost savings to SpaceX as it moves forward with plans to launch Falcon rockets from LC 40.

Late in the fiscal year, Space Florida worked pro-actively with three bidders for NASA's \$3.2 billion Commercial Resupply Service (CRS) RFP to establish a contract to supply cargo to the International Space Station during the post-Shuttle "gap" period, encouraging them to not only for launch, but to also base more manufacturing and launch support activity within Florida. NASA is expected to announce contract award(s) in late November 2008.

Accelerating the development of commercial space business development and creating opportunities for non-traditional commercial space were critical goals from day-one, supported by constant evaluation of volumes of offers and requests for financial support to establish their business "off the ground". Business development and the associated due diligence in this emerging industry, not unlike any promising new market that consists of entrepreneurs and early adopters, is extremely time consuming, and contributes to the long-lead process inherent in emerging industry and disruptive technology type businesses.



Fundamental to establishing commercial launch opportunities, the President continued meaningful dialogue and strengthened Space Florida's business partnerships with the 45th Space Wing and NASA to continue removing barriers in order to facilitate the launch and aerospace-related business.

Significant Space Florida Aerospace Economic Development Activities in FY 2008 included:

- Space Florida continued its relationship with Bigelow Aerospace (BA) by beginning the process of determining the financial, business structure and operational program requirements to support initiatives including the development of a human-rated system to service long-term low earth orbit operations.
- Entered a Letter of Intent (LOI) with a major aerospace company to begin the process of determining the financial and program requirements of the Florida Space Transportation Initiative (FSTI). (FSTI includes the development of a human-rated system to service long term low earth orbit operations.) The FSTI program included the rocket, delivery capsule and launch infrastructure.
- Continued with Phase 2 of Space Florida's Customer Assistance Service Program for the Eastern Range (CASPER) contract with Science Applications International Corporation (SAIC). This contract provides professional mentoring and consulting services to commercial contractors seeking to do business at the USAF Eastern Range.
- Continued to assist the NASA Commercial Orbital Transportation Services (COTS) program contractors by providing valuable assistance in completing their Universal Documentation System requirements documentation and Flight Safety System development.
- Provided continuous support to Space Exploration Technologies [SpaceX] as it renovates LC 40 for launch of its Falcon line of rockets.
- Conducted several technical interchange meetings with COTS rebid competitors, discussing the infrastructure needed to accommodate their intended launch vehicles and which launch facilities at CCAFS might be suitable.
- Conducted months of discussion and configuration development of a launch multi-vehicle, multi-use complex and the capabilities of the State to support launch from Florida.
- Space Florida worked actively on a non-exclusive basis with the three known bidders for NASA's Commercial Resupply Service contract for the ISS; specifically, PlanetSpace / ATK / Lockheed Martin, Space X, and Boeing Corporation.
- Initiated environmental baseline survey of KSC for future commercially focused vertical launch site.
- Entered into a proposal for a project with NASA KSC for possible future use of the Shuttle Landing Facility for sub orbital test flights. Award pending.
- Retained outside consulting expertise (Reynolds, Smith and Hills – RS&H) to assist in preparation of a formal proposal to Orbital Sciences. The consultants examined existing launch infrastructure at Cape Canaveral Air Force Station (CCAFS) and developed cost estimates and lead times for rehabilitation of four launch complexes at CCAFS.
- Offered Orbital Sciences assistance with Eastern Range access coordinated through Space Florida's Customer Assistance Program for the Eastern Range (CASPER); coordinated OSC's application to Enterprise Florida for state financial incentives.

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- Actively conducted implementation role of Space Florida contract with Lockheed Martin to modify and upgrade the Operations and Checkout (O&C) Building for Orion Assembly and Checkout; project on schedule for completion in November 2008; (project 300 new space-related jobs.)
- Conducted discussions with several prospective providers of space tourism services regarding conducting horizontal launches from the Shuttle Landing Facility or the “skid strip” at CCAFS, and at other potential launch sites in Florida (e.g., Cecil Field).
- Identified and began relocation of surplus NASA fueling vessels from Santa Susana, CA to LC 40 (Space X) and LC 36 (Space Florida).

PROJECT 2: ECONOMIC EXPANSION AND DIVERSIFICATION PROJECTS

Space Florida worked to utilize Florida’s strengths in its space launch, private sector, and university capabilities to attract new high-value space enterprises on a statewide basis. Emphasis was placed on opportunities in: technology development and commercialization; International Space Station utilization and exploitation; Department of Defense research, technology, and systems development; space-related tourism and transportation; and space-related or space-enabled commercial products and services (electronics, remote sensing, etc), and life-sciences related activities that could benefit from the capabilities of the Space Life Sciences Lab (SLSL) at KSC.

- Per the recommendations of NASA’s Project Team, Space Florida pursued and conducted meetings with each of the Lunar Lander Craft Design Study Contractors (Andrews, Boeing, Lockheed Martin, Northrup Grumman, Odyssey) to tout the benefits of performing assembly at KSC; the successful partnership between Space Florida and Lockheed Martin on Orion will be used as an example.
- Expanded Space Florida’s network enabling it to affect the positive engagement of all the resources of the USAF 45th Space Wing, the John F. Kennedy Space Center, Enterprise Florida, the Executive Office of the Governor and other organizations in support of these initiatives.
- Initiated the process of identifying necessary requirements to establish a commercially focused range safety system and launch approval process.
- Continued assisting several small and large companies in expanding aerospace business operations. Space Florida entered into more than 54 Letters of Intent or Non-disclosure agreements at the peak of discussions in FY2008.
- Continued the development of an expanded network into DoD space operations through opening more connections with the US Space Command, Air Force Space and Missile Center, Missile Defense Agency, the Army’s Space and Missile Defense Center, NRO and Navy and Marine interests.
- Began relationship with the DoD’s Operationally Responsive Space (ORS) office to expand the use of the Eastern Range and other Florida assets to support ORS operations.
- Continued work with the University of Florida on a Space Florida sponsored research and development project of an innovative small satellite system.
- Conducted multiple discussions with Jacksonville Airport Authority, Chamber of Commerce, Mayor, key leaders along with OTTED, and VISIT Florida to sponsor and relocate a major aerospace event to Florida during the 2009/2010 timeframe.



- Space Florida continued its relationship with ZeroG Corporation to expand the possibilities of microgravity research in the State.
- Formalized a partnership with SPACEHAB to establish a space-based, biotech corridor that stretches from the International Space Station to earth-based Florida resources such as the Space Life Sciences Lab.
- Initiated discussions with a company first identified at the 2008 National Space Symposium, exploring a new manufacturing site for pressure vessels in southwest Florida.
- Entered into a Memoranda of Understanding (MOU) with NASA KSC and Pizzuti, a Columbus, OH-based developer, concerning the development of Exploration Park. The respective MOUs enable Space Florida to move forward with the next steps in this endeavor; namely execution of a formal development agreement between Space Florida and Pizzuti, and completion of an environmental assessment on the targeted 62-acre parcel of land.

PROJECT 3: MARKETING PROJECTS

Space Florida conducted marketing projects to address international and domestic competition. Marketing projects were designed to utilize various delivery mechanisms including trade shows. Space Florida partnered with Enterprise Florida and the appropriate local economic development agencies around the state in these efforts, and coordinated marketing strategy and materials relating to the Cape Canaveral Spaceport with NASA's John F. Kennedy Space Center (KSC) and the USAF 45th Space Wing.

Significant Developments

- Sponsored and led a "Commercial Space Day" that featured major speakers including Lt. Governor Jeff Kottkamp; Elon Musk, President of SpaceX; Patti Grace-Smith, FAA Associate Administrator for Commercial Space Transportation; and senior representatives from Bigelow Aerospace, ZeroG and others.
- Attended 2007 Strategic Space and Defense Conference in Omaha, NE
- Had the largest presence of any participating state at the 24th Annual National Space Symposium in Colorado Springs, CO. Space Florida's booth was prominent on the trade show floor; featured an interactive computer game with data capture of contact information including responses to information on their plans to expand or relocate their business to Florida within the next three years.
 - More than 10 meetings were held with companies that are prospective investors in Florida.
 - Nearly 700 business contacts were collected, which will form the base of distribution for Space Florida's new quarterly newsletter (set to debut in the late 3rd quarter of calendar 2008)
 - Space Florida's proposal to locate COTS activity in Florida was presented to senior Orbital Sciences management
 - Lt. Governor Kottkamp and Space Florida staff met with senior leadership of the USAF Space Command concerning assignment of a launch complex at CCAFS for commercial launch activities
- The President served as a panelist at Space Investment Summit #4 and the 27th Annual International Space Development Conference in Washington, DC. Meetings



were also conducted with Google Lunar X-Prize teams, encouraging them to not only launch from Florida but also consider locating their Lunar Lander development / assembly activity in the state.

- Attended and participated in key meetings at FAA Annual Commercial Space Transportation Conference.
- Attended and conducted meetings at the Space and Missile Defense Conference in Huntsville, AL
- Attended, exhibited and conducted meetings at the AIAA Space 2007 Conference in Long Beach, CA.

PROJECT 4: ECONOMIC IMPACT ANALYSES

Space Florida continued to generate economic data to be used to show the benefit of the aerospace industry per Congressional district. Space Florida continued to collect current and past aerospace economic data and interviewing companies, economic development groups, other state agencies and colleges/universities to evaluate and develop a methodology to compile this report.

Significant Developments

- Completed a joint Space Florida / Economic Development Council of Florida's Space Coast / Florida's High Tech Corridor supply chain analysis project, addressing potential gaps in the aerospace industry supply chain within Florida's I-4 High Tech Corridor. Distribution of the completed report will be conducted during the 3rd quarter of calendar 2008.
- Entered a joint effort with Workforce Brevard to assess skills against economic data for use in developing strategies to address the transition from Shuttle to Constellation
- Completed compiling / combining previous economic impact analyses performed by other state agencies, EDO's and Enterprise Florida
- Completed phase 1 of Program, Personnel, and Operations Systems support that identified stakeholders which provide initial scope of defining the depth of the aerospace economic connection throughout the State
- Explored the development of economic impact modeling capabilities to support Space Florida in evaluating the overall impact of individual space-related investment projects
- Received from the Washington Economic Group a draft methodology and calculation for measuring the economic impact of the space industry in Florida; currently in review process.
- Developing economic impact modeling capabilities to support Space Florida in evaluating the overall impact of individual space-related investment projects.



SPACE FLORIDA ANNUAL PERFORMANCE REPORT: SPACEPORT PLANNING AND DEVELOPMENT

Spaceport Planning and Development

Spaceport Planning and Development is the Funded Activity for planning and coordinating the improvement of Florida's space transportation infrastructure and systems. This Funded Activity implements Space Florida's transportation mission. Space Florida's statutory mandate includes coordination among space businesses, Florida universities, space tourism, and the Spaceport Florida launch centers; and encourages cooperation with municipalities, counties, regional authorities, state agencies, and organizations, appropriate federal agencies and organizations, and other interested persons and groups. The Long Range Program Plan measure is "Number of Projects."

PROJECT 1: STATEWIDE TRANSPORTATION COMMITTEES

The President of Space Florida has been appointed to the Statewide Intermodal Transportation Advisory Council (SITAC) in accordance with 339.64 (5) F.S. and the 2025 Florida Transportation Plan Update Steering Committee. Space Florida will participate in and provide support to these committees as appropriate.

- Reviewed and submitted inputs to the Continuing Florida Aviation Systems Planning Process (East Central steering committee).
- Signed contract with Reynolds, Smith, & Hills (RS&H) for the Master Transportation Plan.
- Reviewed inputs to the Central Florida Metropolitan Planning Organization (MPO).
- Provided inputs to FDOT's Strategic Intermodal System (SIS).

PROJECT 2: SPACE INFRASTRUCTURE AND RANGE MODERNIZATION

Space Florida participated and supported activities that identified ways to improve the capacity, procedures, and technology of the Eastern Range, spaceport facilities, and range-related assets located in the state. Through coordination with the Federal Aviation Administration, NASA, DoD, and industry, Space Florida identified unique range requirements for current or future launch systems, improving technical capabilities or organizational processes, and modernizing communications and data infrastructure.

Significant Developments

- Space Florida investigated a contract with a major Florida engineering firm to produce a Design Study for a launch vehicle processing building on Cape Canaveral AFS Launch Complex 40 for use by SpaceX.
- Space Florida provided funding assistance for development of demolition drawings for Launch Complex 40 for use by SpaceX. This effort saved SpaceX time and allowed them to initiate demolition activities as soon as they received their demolition license from the 45th Space Wing.
- Provided detailed recommendations on how to revise their requirements documentation for ready acceptance by the U.S. Air Force Eastern Range; assisted with their Federal Aviation Administration commercial licensing process; and assisted the development of their flight safety systems.



- Progressed with Phase 2 of Customer Assistance Service Program for the Eastern Range (CASPER) contract with Science Applications International Corp (SAIC).
- The Commander of the USAF 45th Space Wing (45SW), Brigadier General Susan Helms, recommended that all new COTS competitors first engage Space Florida prior to coming to the Wing for assistance, marking a major shift in USAF new customer engagement, and smoothing the commercial customer acceptance process.
- Conducted numerous technical interchange meetings with seven COTS competitors; evaluated capabilities of Florida's space industry against their technical requirements.
- Provided funding assistance for the development of geotechnical and ground water studies for a launch vehicle processing building at Launch Complex 40 for use by SpaceX, saving time and allowing them to initiate construction activities as soon as they receive their license from the 45th Space Wing.
- Provide detailed recommendations on how to revise SpaceX and Orbital Sciences' requirements documentation for ready acceptance by the U.S. Air Force Eastern Range; assisted with their Federal Aviation Administration commercial licensing process; and assisted the development of their flight safety systems.

PROJECT 3: COMMERCIAL SPACEPORT IN FLORIDA

Space Florida pursued the development of a commercial spaceport in the state, including the development of a project plan for funding, design, and implementation of the spaceport.

Significant Developments

- Applied for Spaceport Site Operators' License renewal from the Federal Aviation Administration for Launch Complex 46.
- Continued refurbishment of Launch Complex 46 as part of efforts to rectify safety corrective steps deemed necessary to secure the renewal of our real property license from the Air Force.
- Finalized and submitted renewal of Memorandum of Understanding for joint use of LC46 to the U.S. Navy. The finalized MOU is at the Pentagon awaiting signature from the Strategic Systems Office of the U.S. Navy.
- Contracted with Reynolds, Smith & Hills, Inc. architectural & engineering firm to begin a design concept study of a commercial vertical launch complex in partnership with KSC.
- Entered into discussions with KSC on potential land use arrangements for this launch complex.
- Continued support meetings with the Jacksonville Aviation Authority and the Federal Aviation Administration to assist JAA's Cecil Field Spaceport Site Operator's License application.

PROJECT 5: FACILITIES ANALYSES

Space Florida conducted studies to determine how NASA facilities can become contractor owned and operated, performed comparative analyses of remote assembly site versus launch site assembly requirements.



Significant Developments

- Continued work with NASA, providing professional guidance in assessing facilities that can be utilized for expanded Constellation support activities
- Defined details of upcoming Space Life Sciences Lab lease renewal to maximize its utilization for the greatest benefit to Florida, and further expand its utility in the role of supporting ISS National Laboratory operation
- Closely monitored and evaluated the NASA Constellation program to ensure our awareness of latest decision processes and that those decisions are taken in to consideration for maximum KSC/Florida facility use
- Continued work with NASA KSC senior leadership concerning KSC's facility inventory and Space Florida's participation in their future use, oversight and final disposition.
- Completed RFP process and awarded the engineering design and bid package project for fueled aircraft fire suppression system for the RLV Hangar to bring it to highest and best utility.
 - Renovations on schedule to add a fueled aircraft fire suppression system; target for completion is end of 2nd Quarter, FY 09.
- Entered into a proposal for a project with NASA KSC for possible future use of the Shuttle Landing Facility for sub orbital test flights. Award pending.
- Entered into a proposal for a project with NASA KSC for possible future use of the Shuttle Landing Facility for sub orbital test flights. Award pending.
- Continued discussions with KSC on sharing use of their Advanced Technology Development Center which sports unique cryogenic fueling capabilities the state can market.
- Hosted representatives of several large Florida-based biotech companies; highlighted by a comprehensive tour of the Space Life Science Lab.



ANNUAL PERFORMANCE REPORT: SPACE FLORIDA AND LOCKHEED MARTIN CORPORATION ORION PROJECT

Space Florida entered into an agreement with the Office of Tourism, Trade and Economic Development for \$35 million of non-recurring funds appropriated from General Revenue from the 2006-2007 state fiscal year for establishment of ORION related infrastructure.

The Original Economic Development Agreement between Space Florida and Lockheed Martin Corporation (LMC) was finalized on December 7, 2006. Amendment No. 1 to the Original Economic Development was finalized on June 13, 2007. The Escrow Agreement previously established between Space Florida and LMC has been cancelled by all Parties based on the Amendment No. 1 Contract.

Progress of improvements to the Operations and Checkout (O&C) Facility during the 2008 fiscal year follow:

Major Accomplishments:

- Lockheed Martin has received supplemental IDIQ funding from NASA.
- Project integrated master schedule update complete revealing all work package design integration, subcontractor input and resource loading.
- Facility abatement of hazardous materials now complete.
- 95% of Space Florida funded scope is negotiated and in approval.
- 70% of project baseline costs are negotiated and in approval.
- Demolition phase substantially complete.
- O&C Roof refurbishment continues on schedule
- Air-Lock wall structural steel erection on schedule
- All electrical primary distribution cabling installed
- Office area in room 1287 complete and occupied
- HVAC Systems commissioning effort started
- Basement permanent lighting installed and in operation

Near Term Significant Items

- High bay and low bay lighting installation
- Substation test and power up scheduled
- Vertical door refurbishment start. Existing spare door seals will be used to optimize schedule. Will procure new seals for replacement of spares.
- Floor finishes in basement to begin
- Completion of south wall ductwork trunk lines
- Start of north wall ductwork
- Test cell concrete pours

The O&C Modification effort defined in the 18 work packages is on schedule and on budget for the Project.



SPACE FLORIDA ANNUAL PREFORMANCE REPORT: EDUCATION RESEARCH & DEVELOPMENT WORKFORCE

Space Florida offers students, researchers, Florida teachers and academia many exciting opportunities to partake in innovative education programs and research projects. The emphasis of these educational programs is inquiry based comprising many hands-on activities, thus enabling the participants to experience and solve 'real-world' science programs.

Working relationships between Space Florida, Space Life Sciences Laboratory, KSC NASA, the Florida Space Grant Consortium, Cape Canaveral Air Force Station, and space / science industry employers, provides Florida students and researchers the necessary tools they require for further study and research, and assists them gain rewarding employment in the space and scientific community. In essence, Space Florida is making science and space a medium of adventure and discovery for students of all ages and a meaningful tool for workforce development.

EDUCATION:

During the past year, the **Space Florida Academy** has provided a wide variety of hands-on educational programs for 674 Florida students. The Space Florida Academy provides opportunities for students to engage in stimulating science and math activities. Students have the opportunity to be an aerospace engineer for a week and design and build an scientific payload instrument package equipped with broadcasting camera and launch it on a weather balloon to a height of 100,000 feet (20 miles). They conduct scientific investigations, partake in hands-on experiments, and learn problem-solving skills. 437 Florida students completed five-day Academy programs including 142 Undergraduate/Graduate, 185 High School, 66 Middle School, and 44 Elementary students. Other activities included the robotic design and construction and high velocity rocket launches. Space Florida also provided three day academies for students from several Florida charter schools.

Space Florida was delighted to welcome students from the **Kansas Cosmosphere** to KSC on two separate occasions this year. Sixty-one high school students from Kansas and surrounding states attended four-day workshop programs, while also visiting CCAFS and KSC.

At the **KSC World Space Expo** in October '07, two hundred and thirty seven (237) students actively participated in Space Florida educational activities including a number of scientific balloon releases from KSC. The total number of Florida students who attended this three-day event was 2,683. <http://www.spaceflorida.gov/education2.php>

Space Internship Program (SIP): Space Florida has partnered with the NASA / Florida Space Grant Consortium (FSGC) to conduct a Florida State-wide summer work / internship program both at the Kennedy Space Center and throughout the Florida High Tech Corridor (FHTC). During this program both undergraduate and graduate students participate in a 10-week,

Space Florida



Science Technology Engineering Math (STEM) paid internship program to experience real world research, as well as on the job training at KSC and many Florida space and science related industry and research locations. To date, sixty-seven (67) undergraduate and graduate students have participated in this program, many of whom have been offered full-time positions after graduation. <http://www.spaceflorida.gov/internships.php>

"I have always been interested in the Aerospace industry; however after receiving this opportunity to experience the real NASA, I have gained an extreme desire to help NASA achieve its future goals. As I believe this is one of the main goals of the workshop, I must say it has worked very well. Everything was so well organized and fluid that I feel as if every second we spent there we were learning something new."

*Eric Travis, University of Central Florida (UCF)
Space Florida Undergraduate Academy Student*

"I hope this (Academy) provides a great stepping stone in helping me extend and accelerate my companionship with NASA. It would be one of my wildest dreams come true to become an astronaut. So as of now, nothing is in my way not to."

Joshua W. Ehrlich, Space Florida Undergraduate Academy Student

TEACHER PROGRAMS:

Space Florida is highly cognizant of the importance in supporting Florida teachers as they prepare today's youth for tomorrow's challenges. We have therefore initiated *two major programs providing opportunities for Florida teachers and impacting tens of thousands of their students.

1) The *Space Florida Math and Science Workshop is conducted over a 5-day period at the Kennedy Space Center (KSC). These teacher workshops provide opportunities for teachers to learn Inquiry-Based Science and Math activities and then take these back to the classrooms for the benefit of their students. The teachers also work on the design and building techniques required to release scientific payloads on weather balloons. These workshops are free to Florida Teachers. To date 69 Florida Teachers have participated in this workshop with a real student impact of 2,415 each year. <http://www.spaceflorida.gov/teacher.php>

2) *ITET – Teach the Teacher programs

The **National Science Teachers Association** has made Inquiry instruction is a best practice in teaching science and it has been adopted as a teaching method in the National Science Education Standards. Recognizing the need throughout the State of Florida to provide Inquiry training to Florida teachers, Space Florida initiated ITET, also known as the "Teach the Teacher" program. The full program is planned to impact 2,000 Florida teachers per year and will extend to all 67 counties. ITET recognizes the need throughout the State of Florida to provide working partnerships between Space Florida, Department of Education (DOE), and the Florida School Districts.



In 2008, Space Florida conducted eighteen (18) 3-5 day sessions, thereby impacting 540 Florida teachers throughout the State. In addition to the Inquiry training, each participating teacher received a special STEM kit to reproduce the activities they learned in the classroom, for the benefit of their students. Further details on ITET ("Teach the Teacher") visit: <http://inquiryinstitute.org/>

"After attending the inquiry workshop, I am finally able to see how inquiry can be an effective method of instruction. Having been reluctant to buy into all of the hype, I now see the value in this type of pedagogical approach. I am so excited about presenting inquiry lessons this school year that I've invited my colleagues to visit my classroom so I can model a lesson for them. Thanks so much for the opportunity!"

Barbara Gombar, Conway Middle School

"I had read all about inquiry but really never understood what it was. I thought hands-on meant inquiry. I now finally understand what it means and have a firm grasp on the concept. I got great ideas to use in my room and learned how to alter other labs to make them inquiry based. I intend to implement all that I learned into my class this year. I can't wait to see how my students do and if they like doing it."

Faith Cohen, Hunter's Creek Middle School

Math Arts & Science Achievement (MASA) program:

MASA is an educational, pilot program in Orlando funded by Space Florida and the NASA / Florida Space Grant Consortium, utilizing Trinity Prep, Winter Park as a home base. The purpose of this program is to increase the number of high achieving students who will utilize science and math in their future career endeavors. The program provides numerous learning opportunities for students to be stimulated by engaging in interactive; science, math, and writing activities, thus inspiring and igniting a burning, intrinsic desire to delve deeper and learn more.

Summer Camps and Saturday classes in Orlando currently provide opportunities for students to challenge themselves and exercise their critical thinking skills by using higher order thinking. It is intended that MASA will nurture the unique needs of every student while encouraging the development of our future scientists. This year, Space Florida has conducted 9 STEM sessions impacting 347 Elementary and High School students. To learn more about this program, please go to the MASA website; <http://masaflorida.org/>

Governor's School Academy

Three Florida universities Florida State University (FSU), Florida Institute of Technology (FL Tech) and Embry-Riddle Aeronautical University (ERAU) were recently invited by the Governor to develop a challenging series of activities for Florida gifted, high school students. As part of the initial plans, Space Florida alongside KSC NASA was requested to provide an exciting and challenging curriculum. Two six-day Governor's Schools were held this year at KSC and thirty-six students in total participated in an extended Academy program. At KSC, Delaware North provided logistical support for the students. Further activities included 'problem solving' projects at the Space Life Sciences Laboratory (SLSL).



RESEARCH & DEVELOPMENT:

Space Florida continues to support a number of cutting edge education and research projects in the State of Florida.

- **Funding for Astronaut Bone Density Research at the Space Life Sciences Laboratory, KSC.** Principal Investigators: Dr Sam Durrance and Dr. Shaohua Xu of FL Tech.

This is an investigation of the biological mechanism that binds minerals to the bone organic matrix by studying Astronaut's bone loss with restrained exercise. The colloidal formation and linear aggregation in protein self assembly and amyloid fiber formation may also provide insights in a cure for Alzheimer's disease.

- **Precision Attitude Determination and Control System for Small Satellites at the University of Florida.** PIs Dr. Stephen Eikenberry & Dr. Norman Fitz-Coy.

This effort specifically addresses the need for a three-axis attitude determination and control system for pico- and nano-class satellites capable of rapid retargeting and precision pointing. Due to their low power capabilities, pico- and nano-class satellites find significant usage in low-Earth orbits, where, due to their low altitudes, their instrument's swath width is reduced and thus will require retargeting (maneuvering of the satellite) in order to track ground feature points as the satellite progresses along its orbit. The system in development provides this capability to these satellite classes and is of interest to several companies and government agencies.

- Space Florida supports the Florida University Satellite Design Competition (FUNSAT). University competitors design either an entire satellite meeting the design criteria or a subsystem or payload using predetermined constraints. The satellite must be constructed using the CubeSat Design specifications. If the design team desires to compete entering a complete small satellite, its design must not weigh more than 1 kilogram and have a square shape with edges not exceeding 10 centimeters. The winning team may have the opportunity to have their satellite launched into space. Six Florida universities competed in the competition this year.
- Space Florida supported the University of Florida in establishing the Advanced Space Technologies Research and Engineering Center (ASTREC) which was awarded sponsorship by the National Science Foundation Industry/University Collaborative Research Center Program. Space Florida is a financial member of ASTREC which should become a national resource for technology development, maturation, and demonstration of affordable, responsive, and high performance space systems. ASTREC's proposed activities are of critical importance to the military and civilian space industries.

FLORIDA JOINT MATCHING PROGRAM:

Space Florida and the NASA / Florida Space Grant Consortium annually partner investment in the Florida / NASA Matching Grant program providing seed money for R&D projects that

Space Florida



advance the State's goals. Equitable matching investment to the Florida Space Grant Consortium is attracting higher quality proposals and expanding the programs positive impact throughout the State. In 2007, the program funded seventeen separate space related scientific research projects in Florida, while also cooperating with many academic, educational and workforce partners. The total amount of this joint funding was \$350,000 and supports research and graduate students in space related science projects. In 2008, fifty applicants submitted proposals and seventeen (17) grants were awarded. Typical grant recipients are young assistant professors just beginning their research careers.

So far, the 2007 grantees have produced:

- Eight (8) publications
- One patent
- One invention disclosure
- Follow-up proposals to other agencies totaling \$1.2 million.

Microgravity Research Experiments

Space Florida, Zero G Corporation and the NASA / Florida Space Grant Consortium have recently partnered in a unique and exciting program, enabling students and teachers to experience 'microgravity' on parabolic flights from the Kennedy Space Center and other Florida locations. In addition, under the guidance of Dr. Larry Chew (Space Florida's Education Consultant), Florida students and teachers may submit scientific proposals to have their payload experiments fly on the microgravity flights. This year 9 scientific experiments have flown with Florida teachers and students on microgravity flights from KSC. <http://www.spaceflorida.gov/zerogmicro.php>

Space Life Sciences Lab at KSC

The SLS Lab is a world-class laboratory with all the capability and systems necessary to host International Space Station experiment processing as well as associated biological and life sciences research. Areas include Biotechnology, Microgravity, Space Agriculture, Biomedicine, Conservation Biology, and Microbial Ecology

This unique facility serves as the initial phase of a new 400-acre Research and Technology Park at Kennedy Space Center. The park provides an ideal location for businesses and research groups with a need for close proximity to the launch and landing facilities and technical capabilities at the Cape Canaveral Spaceport.

This year, Space Florida funded research and summer internships at the SLSL, while continuing to work in partnership with KSC NASA and the contractors.

WORKFORCE DEVELOPMENT:

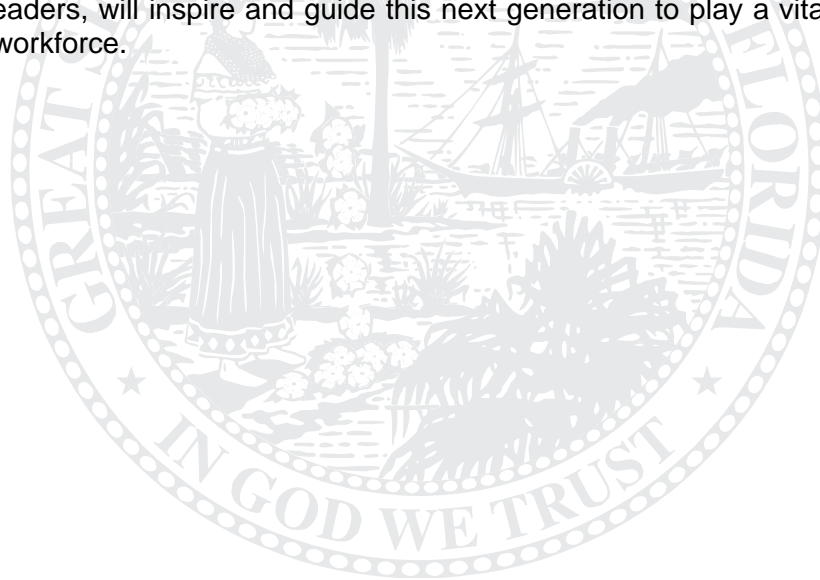
Recognizing the transition of the aerospace workforce from the Space Shuttle to the Constellation program and the critical workforce issues resulting, Space Florida has partnered with the Brevard Workforce Development Board (BWDB), Aerospace Career Development



Council (ACDC), Workforce Florida, Enterprise Florida and many other entities, to determine from a wide base of stakeholders the logical steps to pursue in developing a workforce transition plan.

As the first phase of aerospace workforce transition, the BWDB led a targeted study to analyze and further define the workforce skills in specific Shuttle work areas and related system hardware elements. The result will be a 'skills mapping' from Shuttle to Next Generation system hardware / work requirement for those functions. Other immediate actions include the development of a communications message and plan that centers on lifelong learning; a workforce curriculum analysis; employed worker training; and if determined, the development of a learning management system for further workforce functional skills mapping.

Space Florida education and research and development initiatives are specifically geared towards space industry workforce development. The programs guide the participants towards space science related careers as well as set out to "bridge engineering and science" gaps that exist in the workforce. Education instructors present real-life workplace, space science based problems to the participants. Participants are also introduced to the space science communities through informative tours and panel discussions with key Kennedy Space Center and space industry employees. Participation in these programs, as well as meeting space industry scientists and leaders, will inspire and guide this next generation to play a vital role in Florida's space industry workforce.





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Fiscal Year Ending 2008

Contracts Entered Into FY 2008

Contract Type & Number	Party to Agreement with Space Florida	Purpose
Non Disclosure Agreement 07-049	Commercial Customer	Business Development Opportunities
Space Act Agreement 07-054	NASA-Multi Payload Processing Facility	Modeling Studies
Sponsorship Agreement 07-062	University of Florida	Satellite Development
Non Disclosure Agreement 07-068	Commercial Customer	Business Development Opportunities
Non Disclosure Agreement 07-071	Commercial Customer	Business Development Opportunities
Non Disclosure Agreement 07-072	Commercial Customer	Business Development Opportunities
Fixed Price Contract 07-073	Reynolds, Smith & Hills	Design Concept Study LC-XX
Fixed Price Contract 07-074	Whitney, Bradley, & Brown Consulting	RFP Award-Programs, Personnel & Operations Systems Support
Memorandum of Agreement 07-075	Brevard Workforce	Workforce Study
Non Disclosure Agreement 07-076	Commercial Customer	Business Development Opportunities
Non Disclosure Agreement 07-077	Commercial Customer	Business Development Opportunities
Fixed Price Contract 08-001	Fleishman Hilliard	Marketing and Communication Services
Non Disclosure Agreement 08-002	Commercial Customer	Business Development Opportunities
Non Disclosure Agreement 08-003	Commercial Customer	Business Development Opportunities



Fiscal Year Ending 2008

Space Operations Support Agreement 08-005	United States Air Force	Space Operations Agreement with 45 th Space Wing for Facility Licensing
Right of Entry 08-006	United States Air Force	Right of Entry for Cape Canaveral Campus
Fixed Price Contract 08-008	AirCorr, Incorporated	LC-46 Service Provider/Restoration
Sponsorship Agreement 08-009	Delaware North Parks & Resorts at KSC	World Space Expo Education Sponsorship
Sponsorship Agreement 08-010	Delaware North Parks & Resorts at KSC	World Space Expo Pavilion for Commercial Vendors Sponsorship
Fixed Price Contract 08-011	Schirmer Engineering Corporation	RLV Fire Suppression System Design Services
Task Order Contract 08-013 Task Order No. 01 08-013-001	AJT & Associates	Task Order Contract Design & Engineering Support for Foam Fire Suppression System
Non Disclosure Agreement 08-018	Commercial Customer	Business Development Opportunities
Proprietary Information Agreement 08-019	Commercial Customer	Business Development Opportunities
Non Disclosure Agreement 08-007	Commercial Customer	Business Development Opportunities
Task Order 003 08-013-003	AJT & Associates, Inc.	Administrative Coordination of Approval Process for RLV Hangar Fire Suppression System
Non Disclosure Agreement 08-014	Commercial Customer	Business Development Opportunities
Agreement 08-015	Space Exploration Partners	Agreement for use of Cape Canaveral Campus
Strategic Initiatives Agreement 08-020	Zero Gravity Corporation	Phase II Education Initiative



Fiscal Year Ending 2008

Sponsorship Agreement 08-021	Florida Institute of Technology	Research sponsorship provided for “A New Theory and New Targets Against Alzheimer’s Disease”, being performed by FIT at the SLSL
Fixed Price Contract 08-023	BRPH	Limited Extents Site Control and Topographic Survey relative to the requirements necessary for storm water permits associated with Launch Complex 40 (LC-40), Cape Canaveral Air Force Station (CCAFS)
Fixed Price Contract 08-024	BRPH	Geotechnical and Subsurface Investigation relative to the requirements necessary for storm water permits associated with Launch Complex 40 (LC-40), Cape Canaveral Air Force Station (CCAFS),
Non Disclosure Agreement 08-025	Commercial Customer	Business Development Opportunities
Funding and Program Agreement 08-026	OTTED	Program implementation of duties and responsibilities established in Chapter 331.302
Non Disclosure Agreement 08-027 Fixed price Contract 08-027-001	Orbital Commerce	Business Development Opportunities Provision of delivery, set up and operation of the Orbital Commerce Project (OCP) Spaceflight Exhibit and facilitate a Space Florida Contest by seeing who can achieve the highest altitude in an OCP simulator at the World Space Expo Event
Space Florida Insurance Policy 08-028	Florida League of Cities	General Liability, Workman’s Comp and Property Insurance
Non Disclosure Agreement 08-030	Commercial Customer	Business Development Opportunities
Task Order Contract 08-031	Reynolds, Smith and Hills, Inc.	Task Order Contract for Master Transportation Planner
Task Order 08-031-001	Reynolds, Smith and Hills, Inc.	Planning and approach for Master Transportation Plan
Professional Services Agreement 08-032	Graphic Bob, Inc.	Create and maintain Space Florida website



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Consulting Agreement 08-033	WBB Consulting	Executive Briefing to the SF Board of Directors with regard to SF's Customer Survey Results and SF Leadership training
Non Disclosure Agreement 08-034	Commercial Customer	Business Development Opportunities
Non Disclosure Agreement 08-036	Commercial Customer	Business Development Opportunities
Fixed price Contract 08-037	The Washington Economics Group, Inc.	Comprehensive economic impact study regarding the Florida Space Transportation Initiative Project
Non Disclosure Agreement 08-038	Commercial Customer	Business Development Opportunities
Non Disclosure Agreement 08-039	Commercial Customer	Business Development Opportunities
Agreement 08-040	Commercial Customer	Support Agreement
Agreement 08-041	Commercial Customer	Support Agreement
Professional Service Agreement 08-042	The Ardmore Tree	Content development of Space Florida website
Consulting Agreement 08-044	Florida Tech Consulting	Report on fulfilling the duties and purpose of the Space Florida Act and provide a report on the Florida Space Policy to include intergovernmental priorities, strategies and an execution plan
Agreement 08-046	United Space Alliance	Funding provided for demonstration effort opportunities
Funded Space Act Agreement 08-047	NASA	Evaluation of tanks located at SSFL for potential COTS participant utilization
Non Disclosure Agreement 08-048	Tim Franta	NDA in conjunction with Florida Tech Consulting



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Non Disclosure Agreement 08-049	David Teek	NDA in conjunction with Florida Tech Consulting
Non Disclosure Agreement 08-053	Carolyn J. Fausnaugh	NDA in conjunction with Florida Tech Consulting
Non Disclosure Agreement 08-054	Commercial Customer	Business Development Opportunities
Non Disclosure Agreement 08-043	Commercial Customer	Business Development Opportunities
Agreement 08-045	Brevard Workforce Development Board	Workforce Transition Study
Fixed Price Contract 08-050	Reynolds, Smith and Hills, Inc.	OSC Design Concept Study LC-20 and LC-36
Letter of Agreement 08-051	United Space Alliance	Letter of approval for utilization of RLV hangar-Lease Agreement in process
Task Order Contract 08-055	General Physics	SSFL Tanks (Space X Incentive)
Task Order 001 08-055-001	General Physics	Evaluation of SSFL Tanks
Task Order Contract 08-056	AirCorr, Inc.	RLV Hangar Upgrades/Renovation Project Management
Task Order 001 08-056-001	AirCorr, Inc.	Support Services
Task Order 002 08-56-002	AirCorr, Inc.	Infrastructure Support Services (Roof; etc.)
Memorandum of Understanding 08-057	X Prize Foundation	Google Lunar X-Prize Competition
Lease Agreement 08-058	HIW-KC Orlando, LLC	Orlando SF Satellite Office Lease
Task Order Contract 08-059	WBB Consulting	Central Florida Commercial Spaceport Market Study Analyses



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Task Order 001 08-059-001	WBB Consulting	Preliminary Market Analysis
Administrative Services Agreement 08-060	HR Expertise	SF Human Resource Contractor
Letter of Engagement 08-062	Broad and Cassel	SF Legal representation and counsel
Letter of Engagement 08-063	Ford and Harrison	SF Human Resource legal representation and counsel
Non Disclosure Agreement 08-064	Commercial Customer	Business Development Opportunities
Letter of Intent 08-065	Spacehab, Inc.	Business Development Opportunities
Letter of Agreement 08-066	Enterprise Florida	Shared employee
Consulting Agreement 08-069	Capitol Alliance Solutions	Preliminary Commercial Launch Range Analysis
Consulting Agreement 08-070	Blank Rome Government Relations LLC	Federal Government Relations Representation
Application 08-071	Department of Management Services	Acquisition of NASA Railcars from Federal Bureau of Property Assistance
Memorandum of Understanding 08-072	California Space Authority and New Mexico	MOU between SF, CSA and NMSA
Consulting Agreement 08-074	Wilson Murphy Partners	X-Prize Google Lunar Competition professional services
Professional Services Agreement 08-075	Loevan, Inc.	Services and support for Congressional Appropriates Support for FY 2009
Memorandum of Agreement 08-080	Andrews Research & Education Institute	Project Odyssey
Consulting Agreement 08-082	Mercy Enterprises	External Affair Support



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Sponsorship Agreement 08-083	Spacehab, Inc.	R&D Sponsorship of Pathfinder 1A/1B Project
License Agreement 08-084	45th Space Wing	License for Space Operations Control Center Building at Cape Canaveral Air Force Station
Letter of Intent 08-087	X-Prize Foundation	Florida X-Prize Cup
Non Disclosure Agreement 08-088	Commercial Organization	SF Business Development Opportunities
Rental Agreement 08-089	Aamerican Property Management	Temporary Housing for new VP of Business Development-Bernie McShea
Task Order 004 08-013-004	AJT & Associates	Project Management Services for RLV Hangar
MOA 08-022	SpaceLand	Memorandum of Agreement
Agreement 08-040-001	Planet Space	Teaming Agreement for CRS Proposal
Lease Agreement 08-051-001	United Space Alliance	Lease of the RLV Hangar
Task Order 002 08-055-002	General Physics	SSFL Ancillary items inventory and estimate for equipment transfer
Task Order 003 08-055-003	General Physics	SSFL Planning and Permitting
Task Order 004 08-055-004	General Physics	SSFL Relocation of Vessels
Fixed Price Contract 08-061	Bionetics	FASTRACK
Agreement 08-067	Inquiry Institute	Teacher Training Program
NASA Purchase Order 08-076	NASA	ISS and JEA RLV Hangar Use (4000 sq. ft.)



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MOU 08-077	NASA	Exploration Park
Space Act Agreement 08-078	NASA	FASTRACK Design and Development Partner Agreement
MOU 08-081	FAS	Irish Training Program
MOU 08-086	FDOT	Partner MOU
Contract 08-092	Futron Corporation	CCVL Market Analysis
NDA 08-093	Constellation Services, Inc.	Business Development Opportunities
NDA 08-094	XCOR Aerospace	Business Development Opportunities
Consulting Agreement 08-095	ITV Group, Inc.	Financing Assistance Program-Consulting Services
NDA 08-095-001	ITV Group, Inc.	Business Development Opportunities SF Vendor
NDA 08-097	Rocketplane Kistler	Business Development Opportunities
NDA 08-100	ETC	Business Development Opportunities
Fixed Price Contract 08-101	Southern Fire Protection	RLV Hangar Foam Fire Protection Renovation/Upgrade
NDA 08-102	Quantum 3 Ventures	Business Development Opportunities
Group Sales Agreement 08-103	Palm Beach Gardens Marriott	June 2008 BOD Meeting
NDA 08-104	Time Warner Telecom Holdings Company	Business Development Opportunities



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NDA 08-105	Griffin Integrated Marketing	Business Development Opportunities SF Vendor
Fixed Price Contract 08-106	ManTech International Corp.	Loss Prevention Program Development
Consulting Agreement 08-108	Griffin Integrated Marketing	Event Planning and marketing and communications support
Fixed Price Contract 08-111	Mindspot	Stakeholder and partner relations survey
NDA 08-116	Virgin Galactic	Business Development Opportunities
Letter of Permission to Occupy 08-119	Starfighters, Inc.	Letter authorizing occupancy of the RLV Hangar until lease is finalized
NDA 08-120	ManTech International Corp.	Business Development Opportunities SF Vendor
NDA 08-121	Odyssey Mood Limited	Business Development Opportunities
NDA 08-122	US Space Plane Systems, LLC.	Business Development Opportunities

Space Florida
Total Compiled Statement of Revenues and Expenses*
For the Twelve Month Period Ended June 30, 2008
Unaudited
In 000's

	Total Budget	1st Qtr Actual	2nd Qtr Actual	3rd Qtr Actual	4th Qtr Actual	Total Actual	Budget Remaining	Percentage Remaining
Revenues								
Appropriated Revenue	\$ 7,000	\$ -	\$ 2,500	\$ -	\$ 1,000	\$ 3,500	\$ 3,500	50%
FY 07 Carry Over	2,860	2,860	-	-	-	2,860	-	
Fees and Charges for Service	2,795	747	593	914	673	2,927	(132)	-5%
Total Revenues	\$ 12,656	\$ 3,607	\$ 3,093	\$ 914	\$ 1,673	\$ 9,288	\$ 3,368	
Expenses								
Employee Compensation	\$ 2,802	\$ 406	\$ 508	\$ 519	\$ 721	\$ 2,154	\$ 648	23%
Consulting Services	2,372	178	690	887	850	2,606	(234)	-10%
Subcontract Services	1,917	208	403	418	754	1,783	134	7%
Capital Improvements	1,618	-	101	131	135	367	1,251	77%
Maintenance and Repair	631	183	120	225	120	648	(18)	-3%
General and Administrative	3,049	389	790	742	1,014	2,935	114	4%
Total Expenses	\$ 12,390	\$ 1,363	\$ 2,613	\$ 2,922	\$ 3,596	\$ 10,493	\$ 1,896	15%
Net Change for Period	\$ 266	\$ 2,244	\$ 481	\$ (2,008)	\$ (1,922)	\$ (1,206)		

For Internal Use Only

* Full Funding



Performance Measures Final Report 2008

Purpose: To establish facilities or complementary activities to enhance and provide commercial space-related development opportunities for business, education and government and to develop a strategy for and implement the acceleration of space-related economic growth and educational development within the state.

	Measure	Standard FY 2008	Total
1	Number of visitors to space related tourism facilities	1.8 million	1,596,252
2	Number of trade shows and conferences Space Florida exhibited or attended	10	15
3	Number of times Florida businesses are provided technical, financial, or other space-related services by Space Florida	150	171
4	Number of research projects, partnerships and grants supported by Space Florida	30	49
5	Number of financial deals facilitated by Space Florida	3	5
6	Number of students attending Space Florida Educational Programs	500	3779
7	Number of Space Florida educational launches	20	68